Wisconsin Legislature

P.O. Box 8952 | Madison, WI 53708

December 16, 2009

Senator Fred Risser, Co-chair
Joint Legislative Council
Room 220 South
State Capitol
Madison, WI 53702

Representative Marlin Schneider, Co-chair
Joint Legislative Council
Room 204 North
State Capitol
Madison, WI 53702

Dear Senator Risser and Representative Schneider:

We respectfully request, upon the motion of Representative Terese Berceau and Representative Chuck Benedict, a Legislative Council study be conducted on the feasibility of creating a nanotechnology registry and the development of subsequent legislation, to monitor the use, manufacture and disposal of nanomaterials in Wisconsin. It is our goal to work with the cooperation of both public agencies, scientists, and private sector businesses to both enhance nanoscience and nano-business in Wisconsin, and address concerns about public health and environmental safety.

Nanomaterials have increasingly become more a part of our everyday lives, in consumer products from sunscreen to hockey sticks to washing machines to promising new healthcare advances in such fields as cancer research. Much about these substances is not known, though we do know that the character of many common substances changes radically when reduced to the nanoscale.

We have learned, through an Assembly Public Health Committee informational hearing conducted by Representative Chuck Benedict at the request of Representative Berceau, some fascinating facts about nanotechnology. For instance:

- Nanomaterials can transfer heat up to 400% faster than other liquids, which could make heating systems more efficient, and promote safer energy
- Nanotechnology shows promise toward finding a way to manipulate and kill cancer cells and disease-causing bacteria and viruses
- Nanotechnology might bring about a whole new generation of faster computers
- Nanotechnology can make materials stronger and last longer

But along with potential benefits, there are potential risks:

- Scientists have asserted that carbon nanotubes, when inhaled, may suppress the immune system, posing a significant hazard to workers
- Nanotubes have been found to have a similar size and structure as asbestos; studies in mice have suggested a similar link to cancer
- Scientists have raised concerns about the release of nano silver (used as an anti-bacterial agent) into the environment, including the impact on human and animal health; highly resistant bacteria could be one negative result, and other effects are simply not known

Currently, entities manufacturing or using nanomaterials in Wisconsin are not required by state or federal regulation to identify what materials they are using, how they transport and dispose of them, or where such work is taking place.

Information gaps present serious concerns to the first responders and public agencies responsible for addressing health consequences or releases into our air and water. Seeking this information "downstream," after an event (such as an unintended release), poses many problems, whereas an "upstream" approach, in which we have vital information on record, places us on safer footing. The long-term health of workers, the health of the public, and the protection of the environment would all benefit from this information. We envision a process that would safeguard the privacy (such as trade secrets or scientific research) of science and industry, as well as provide incentives and competitive advantages through greater openness and public trust. A somewhat similar concept is embodied in The DNR Green Tier program, a public-private compliance and reporting system that has been successful in Wisconsin.

In 2007, Rep. Berceau wrote to secretaries of the Wisconsin Departments of Natural Resources, Commerce, Agriculture Trade and Consumer protection, and Health Services, requesting guidance in the creation of a nanotechnology registry. The results were underwhelming, with tepid interest at best and no clear agency volunteering a lead role. With all of the interest evolving in other states and the European Union, this lack of interest was disappointing.

While no mandatory national registry is in force in the United States, local communities (such as Cambridge, MA and Berkeley, CA) and one state (California) have enacted limited local regulatory requirements. This issue is emerging internationally, as well, as other nations begin to take the first steps toward public accountability. For example, the

European Union has appointed a Commission and adopted an Action Plan for Europe. Its ongoing effort is focused on greater transparency, research and risk assessment to assure a high level of safety for human and environmental health in multiple countries. The insurance industry is also looking closely at liability issues related to the lack of nanomaterial information, despite a flood of new products into the current marketplace, and a host of new processes in the workplace.

The prestigious Woodrow Wilson International Center for Scholars, and the University of Minnesota Center for Science, Technology and Public Policy, among others, have studied this issue extensively. They have recommended to policy-makers the adoption of better oversight and the encouragement of regulatory standards and guidelines for science and industry, to provide a "bridge" to ensure public health and environmental safety.

Wisconsin can take a leadership role in addressing this issue. The development of a registry in partnership with science, business, and the public sector -- and which enhances the economic development of our state -- is our ultimate goal.

Thank you for your consideration of this request.

Sincerely,

Terese Berceau
State Representative
76th Assembly District

Chuck Benedict
State Representative
45th Assembly District

Penny Bernard Schaber
State Representative
57th Assembly District

cc: Terry Anderson, Director, Wisconsin Legislative Council